#### **CHAPTER 2**

# II. VARIATION IN LOCAL PUBLIC HEALTH AGENCY WORKFORCE BY SIZE OF POPULATION SERVED - 2004

Forty-seven percent (47%) of Missouri's local public health agency workforce is employed in the 13 public health jurisdictions that serve populations greater than 80,000. The remaining 101 agencies employ the rest (53%). The largest agencies are most likely to employ staff in full-time positions. Eight percent (8%) of the largest agencies' staff works part time while 31% of the staff in the smallest agencies is employed part time. Agencies serving populations of 20,000 or fewer have a slightly higher turnover rate, with 15% of their staff hired in the last year. Agencies serving other population sizes hired from 12% to 14% of their staff during the past year. (See Graph 7.1 & 7.2 and Data Table 7.1 & 7.2)

## BENEFITS FOR LOCAL PUBLIC HEALTH WORKFORCE

Most agencies (86% of smallest to 100% of largest) contribute to health insurance benefits for staff. However, of agencies serving populations greater than 80,000, 92% also contribute to dental insurance coverage; only 14% of agencies serving populations 20,000 or fewer are able to do so. Ninety-two percent (92%) of the largest agencies contribute toward life insurance for their staff, while only 59% of the smallest agencies do so. Staff retirement programs are supported by 100% of agencies in both groups that serve populations greater than 40,000. Seventy-seven percent (77%) of the smallest agencies contribute toward this benefit, and 83% of agencies that serve populations from 20,001 to 40,000 contribute toward employee retirement. (See Graph 7.3 & 7.4 and Data Tables 7.3 & 7.4)

### PROFESSIONAL DEVELOPMENT

Most agencies (86% of the smallest to 100% of both groups that serve populations over 40,000) have staff that participate in computer based training, satellite education programs, and other continuing education. Agencies serving populations from 40,001 to 80,000 are more likely than those is other groups to have staff participating in college courses as a means of professional development; 69% of agencies in this group utilize college courses compared to 41% to 62% of agencies in groups that serve other sizes of population. (See Graph 7.5 and Data Table 7.5)

# **ADMINISTRATORS**

Over half (55%) of administrators in agencies that serve populations 20,000 or fewer are registered nurses. Nurses also fill the role as administrator in 50% of agencies that serve populations from 40,001 to 80,000. No agencies that serve populations greater than 80,000 have nurses as their administrator. (See Data Table 7.6.1)

The percentage of time spent on administrative activities increases in agencies serving larger populations. Twelve of the 13 administrators (92%) in the largest agencies spend all of their time on administration. Eighty-one percent (81%) of administrators in agencies serving populations from 40,001 to 80,000, 59% of administrators in agencies serving populations from 20,001 to 40,000, and only 38% of administrators in agencies serving populations 20,000 or fewer spend all of their time managing people and activities within their organization. (See Graph 7.6.3 and Data Table 7.6.3)

Educational levels of administrators are highest in the largest agencies. Eighty-five percent (85%) of administrators in agencies serving populations over 80,000 have a master's or doctorate degree. The percentage of administrators with a bachelor's degree or above decreases from 100% in agencies serving populations greater than 80,000, and 85% in agencies serving populations from 40,001 to 80,000, down to 36% in agencies serving populations 20,000 or fewer. Twenty-seven percent (27%) of administrators in agencies serving populations 20,000 or fewer, and 21% of administrators in agencies serving populations from 20,001 to 40,000 have high school as their highest graduation level. Fourteen percent (14%) and 10% of administrators in these respective groups are currently working towards a baccalaureate degree. (See Graph 7.6.4 and Data Table 7.6.4& 7.6.6)

Over half (52% to 66%) of administrators in each of the three groups of agencies serving populations less than 80,000 have been in their position 6 years or more. Conversely, administrators in the largest agencies were hired more recently; 69% have spent 5 years or less in their position. (See Graph 7.6.5 and Data Table 7.6.5)

Annual salary earned by an administrator increases with the size of population served by the agency. A majority (77%) of administrators in agencies serving populations greater than 80,000, earn an annual salary of \$75,000 or more. In agencies that serve populations from 40,001 to 80,000, the majority of administrators (63%) earn from \$55,000 to \$74,999. More administrators (48%) in agencies serving populations from 20,001 to 40,000 and 50% in agencies that serve populations of 20,000 or fewer earn between \$40,000 and \$54,999. (See Graph 7.6.7 and Data Table 7.6.7).

## **NURSES**

Registered nurses (RNs) make up from 26% to 31% of the total staff in agencies within the 3 groups that serve smaller sizes of population, but in agencies that serve populations greater than 80,000, RNs represent only 16% of their workforce. Eight (8) of the 12 nurse practitioners working in local public health agencies work in agencies that serve populations of 20,000 or fewer. Four (4) of the 12 also fill the role as agency administrator. The largest agencies are more likely to employ RNs with a bachelor's or master's degree in nursing; 48% of their RNs have such degrees. The percentage of all RNs with bachelor's or master's degrees working in agencies serving other population sizes ranges from 23% to 27%. However, 19% of RNs working in agencies serving populations of 20,000 or fewer are currently working towards a higher degree. Only 3% to 5% of nurses in agencies serving other sizes of population are doing so. (See Graphs 7.7.1 thru 7.7.3 and Data Tables 7.7.1 thru 7.7.3)

There are 25 RNs that are certified by American Nurses Credential Center (ANCC) as Community Health Nurses currently working in local public health agencies. Ten (10) of the 25 work in agencies serving populations of 20,000 or fewer. The rest are evenly distributed between agencies that serve populations between 20,001 and 40,000 and those serving populations greater than 80,000. No certified nurses work in agencies serving populations between 40,001 and 80,000. (See Graph 7.7.3 thru 7.7.6 and Data Table 7.7.4)

In agencies serving populations greater than 80,000, 18% of RNs without a bachelor's or master's degree have completed a baccalaureate course in principles of community/public health nursing; only 5% of RNs without a degree in the smallest agencies have done so. Eleven percent (11%) of RNs without a degree in the other groups of agencies have completed the course. A

larger percentage (71% to 73%) of RNs working in the 2 groups of agencies that serve smaller sizes of population reportedly are practicing population-based public health nursing. Sixty-two percent (62%) to 67% of RNs working in each of the groups of agencies serving larger populations report that they practice population-based public health nursing. (See Graphs 7.7.3 thru 7.7.6 and Data Tables 7.7.5 & 7.7.6)

Forty-six percent (46%) of agencies that serve populations greater than 80,000 pay their full-time registered nurses an average annual salary of \$40,000 or more; only 4% of agencies that serve populations of 20,000 or fewer pay nurses in this range. The largest percentage (54% to 74%) of agencies in all groups pay nurses an average annual salary in the range between \$30,000 and \$39,999. No agency in the group serving the largest population size pays nurses an average annual salary less than \$30,000. However, 19% to 31% of agencies in the groups serving smaller population sizes pay nurses an average annual salary in the lowest range between \$20,000 and \$29,999. (See Graph 7.7.7 and Data Table 7.7.7)

Sixty percent (60%) of agencies that serve populations greater than 80,000 pay Licensed Practical Nurses (LPNs) an annual average salary within the range between \$30,000 and \$39,999, however, the majority of agencies (86% or more) in other groups pay LPNs in a lower range between \$20,000 and \$29,999. LPNs represent 8% of the workforce in the smallest agencies, but only 1% of the workforce in the largest agencies. (See Graphs & 7.8.2 and Data Tables 7.8.1.1 & 7.8.2)

#### **ENVIRONMENTAL SPECIALISTS**

More agencies (60%) serving populations of 20,000 or fewer employ environmental specialists part time; in agencies serving populations greater than 80,000, only 3% of environmental specialists work part time. Fifty-three percent (53%) of agencies that serve populations of 20,000 or fewer pay environmental specialists an average annual salary in the range between \$20,000 and \$29,999. The majority of agencies (68% to 91%) in all other groups pay environmental specialists an average annual salary above \$30,000, and 33% of the largest agencies pay in a higher range from \$40,000 to \$54,999. (See Graphs 7.9.1 & 7.9.3 and Data Tables 7.9.1 & 7.9.3)

Approximately (40%) of environmental specialists working in the 2 groups of agencies that serve population sizes between 20,001 and 80,000 are state certified; only 12% of those working in the largest agencies are certified. Nationally registered environmental specialists are evenly distributed among the 4 groups of agencies; in each group 4% to 5% are nationally certified. (See Graph 7.9.4 and Data Tables 7.9.4.1 & 7.9.4.2)

### **NUTRITIONISTS**

Agencies serving populations of 20,000 or fewer are most likely to hire nutritionists as part-time staff. Seventy-nine percent (79%) of nutritionists in agencies serving populations of 20,000 or fewer work part time compared to approximately 12% in each of the 2 groups of agencies serving populations greater than 40,000. The majority (67%) of full time nutritionists working in the smallest agencies earn an average annual salary in the range from \$20,000 to \$29,999. Eighty percent (80%) of full-time nutritionists in the largest agencies and 50% of those working in agencies that serve populations from 40,001 to 80,000 earn an annual salary in a higher range of \$30,000 or more. (See Graphs 7.10.1. & 7.10.3 and Data Tables 7.10.1.1 & 7.10.3)

#### **DIETICIANS**

Eighty percent (80%) of dieticians working in the largest agencies work in full-time positions. Only half (50%) of those working in agencies serving populations of 20,000 or fewer, and 63% of those working in agencies that serve populations between 20,001 and 40,000 work full time. All dieticians in agencies that serve populations between 40,001 and 80,000 have a bachelor's degree, and all are registered dieticians. In groups of agencies that serve other sizes of population, 10% to 13% of dieticians have an associate degree as their highest education attained, and 13% to 40% have master's degrees. Twenty-five percent (25%) of dieticians in the smallest agencies are registered, 75% of those in agencies that serve populations between 20,001 and 40,000, and 80% of those in agencies that serve populations over 80,000 are also registered dieticians. The majority (60% to 75%) of agencies in each group pay dieticians an average annual salary in the range between \$30,000 and \$39,999. (See Graphs 7.11.1.1 thru 7.11.3 and Data Tables 7.11.1.1 thru 7.11.4)

## **HEALTH EDUCATORS**

Sixty-two percent (62%) of the largest agencies have health educators; however, only 30% of agencies that serve populations of 20,000 or fewer have a health educator on staff. Eighty-five percent (85%) of health educators in the largest agencies work full time, compared to the smallest agencies where only 43% are full time. Over half (53%) of health educators in the largest agencies have a master's degree or above; only 5% to 10% of health educators working in agencies serving other sizes of population have attained this educational level. Over half (57%) of the largest agencies pay full-time health educators an average annual salary over \$40,000. The majority (60% to 83%) of agencies in groups serving other sizes of population pay health educators in the lowest range between \$20,000 and \$29,999. Half (50%) of the 10 health educators that are Certified Health Education Specialists work in the largest agencies. (See Graphs 7.12.1 thru 7.12.4 and Data Tables 7.12.1 thru 7.12.4)

### SOCIAL WORKERS

Over half (54%) of agencies that serve populations greater than 80,000 hire social workers, but only 7% of the smallest agencies have them. Fifty-two percent (52%) to 67% of social workers in the 3 groups of agencies that serve populations over 20,001 are licensed, while 20% in the smallest agencies are. (See Graphs 7.13.1 thru 7.13.4 and Data Tables 7.13.1 thru 7.13.4)

# SUPPORT STAFF

Support staff account for 31% of total workforce in agencies that serve populations between 40,001 and 80,000. Only 19% of workforce in the largest agencies is comprised of support staff. As with most other categories of staff, more agencies that serve populations greater than 80,000 pay support staff an average annual salary in a higher range. Seventy-seven percent (77%) of the largest agencies pay in the range between \$20,000 and \$29,999 and 15% of them pay over \$30,000. Between 31% and 46% of agencies in the other 3 groups of agencies pay support staff in the lowest range below \$20,000 (See Graph 7.14.1. & 7.14.3 and Data Table 7.14.1.1 & 7.14.3)

#### EPIDEMIOLOGY SPECIALISTS

Ninety-two percent (92%) of the largest agencies have epidemiology specialists on staff, but only 5% of the smallest agencies employ them. Fifty-five percent (55%) of epidemiology

specialists working in the largest agencies, and seventy-five percent (75%) of those working in agencies that serve populations between 40,001 and 80,000 have a master's degree or above. In the smallest agencies, none have a master's degree, and only 33% have a bachelor's degree. (See Graphs 7.15.2 and Data Tables 7.15.1 & 7.15.2)

## **EMERGENCY RESPONSE PLANNERS**

Each of the 13 largest agencies has an emergency response planner on staff; only 7% of the smallest agencies employ planners. In the 2 groups of agencies that serve populations over 40,001, each of the planners works full time and each of them has a bachelor's degree or above. In the 2 groups of agencies that serve populations up to 40,000, 25% to 43% of planners work part time, and 28% to 50% have completed an educational level lower than a bachelor's degree. (See Graphs 7.16.1 & 7.16.2 and Data Tables 7.16.1 & 7.16.2)

## **PHYSICIANS**

Only three full time physicians are employed in local public health agencies. Each of them works in an agency serving populations greater than 80,000. Nine part-time physicians are employed and are evenly distributed among the other sizes of agencies. Agencies serving populations over 20,000 are more likely (61% to 83%) have physicians on retainer. However, a majority (55%) of the smallest agencies rely on volunteer physicians. (See Graph 7.17.1 & 7.17.1.3 and Data Table 7.17.1.1 & 7.17.1.3)

## **DENTISTS**

Only 4 agencies employ dentists to work in public health. Two full-time dentists work in agencies that serve populations greater than 80,000. One-full time dentist works in an agency that serves a population between 40,001 and 80,000, and 1 part-time dentist works in an agency that serves a population between 20,001 and 40,000. The largest agencies have an additional 6 dentists on retainer. The smallest agencies, and those that service populations between 40,001 and 80,000 rely on volunteer dentists (See Graph 7.17.2.1 & 7.17.2.3 and Data Table 7.17.2.1 & 7.17.2.3)

### OTHER LOCAL PUBLIC HEALTH AGENCY STAFF

Agencies serving populations greater than 80,000 reportedly have up to 39% of their workforce filling positions other than those described above, compared to agencies serving populations from 40,001 to 80,000 where only 5% of staff fill other kinds of positions. Eighty percent (80%) of the 677 staff reported in the "other" category work in the largest agencies. (See Graph 7.18.1 & Data Table 7.18.1.1)